

TRANSPORTATION-RELATED TBI IN UTAH

Facts about Transportation-related Traumatic Brain Injury (TBI) in Utah

- Injuries related to transportation are the second leading cause of TBI in Utah (2.2 per 10,000 population) after falls (3.6 per 10,000 population).¹
- 54.3% of those who sustained a motor vehicle related TBI were not wearing a seatbelt.¹
- Only 38.6% who sustained a transportation-related TBI were tested for alcohol, but of those who were tested, 28.9% were positive.¹

TBIs included in this database:

- 1) Presence of one or more of the following:
 - Observed or self-reported unconsciousness or decreased level of consciousness;
 - Amnesia;
 - Skull fracture;
 - Changes in motor function, sensory function, reflexes, speech;
 - Seizures; or
 - Hemorrhages, bruising or other trauma of the brain.
- 2) A hospital stay or TBI that results in death.

2006 Traumatic Brain Injury Data

WHO

- Overall, males (2.8 per 10,000 population) sustained more than twice as many transportation-related TBIs as females (1.3 per 10,000 population).¹
- Males ages 10-19 suffered the highest rate of TBI at 7.9 per 10,000 population.¹
- Males ages 20-29 had the second highest rate of TBI at 7.0 per 10,000 population.¹
- Males ages 40-49 had the third highest rate of TBI with 6.0 per 10,000 population.¹

HOW

- The top five causes of transportation-related TBIs were motor vehicle crashes (60.2%), ATVs (12.5%), motorcycle crashes (12.3%), pedestrian-related incidents (12.3%), and bicycle crashes (2.7%).¹

WHERE

- Transportation-related TBI rates were highest for those residing in frontier counties (5.9 per 10,000 population). Frontier is defined as counties with fewer than 6 people per square mile.
- Second highest transportation-related TBI rates were in rural counties of residence (4.3 per 10,000 per population) followed by urban counties of residence (3.4 per 10,000 population).¹

Transportation-related TBIs by Cause¹

Cause	Number	Per-cent	Crude Rate per 10,000*
Motor vehicle crash	265	60.2%	2.16
ATV	55	12.5%	0.45
Motorcycle crash (traffic)	54	12.3%	0.44
Pedestrian	54	12.3%	0.44
Bicycle (traffic)	12	2.7%	0.10
Totals	440	100%	3.58

*TBI causes for data year 2006 are not grouped the same as in previous years. Rates are based on sampled cases and adjusted to represent all TBIs in Utah (including unsampled and fatal TBIs).

HOW MUCH

- In 2006, inpatient hospital charges for transportation-related TBIs totaled \$40 million, or 55% of TBI medical costs.¹
- The average cost for a transportation-related TBI was highest for a motorcycle crash at \$122,832 per crash.¹

TRANSPORTATION-RELATED TBI PREVENTION TIPS²

Motor Vehicles

- Wear a seat belt on every ride.
- Always place children in a safety seat in the back seat of a motor vehicle.
- Put children in the correct car seat or booster seat for their age, height, and weight. Kids must be in a car seat or booster seat until 8 years of age and at least 4 feet 9 inches tall.
- Don't drive distracted, drunk, drugged, or drowsy.
- Always wear a helmet on motorcycles, ATVs, or snowmobiles.
- Children should not drive motorcycles, ATVs, or snowmobiles.



All Terrain Vehicles (ATVs) or Off Highway Vehicles (OHVs)



- Wear a helmet.
- Use the buddy system; never ride alone.
- Avoid riding on paved roads.
- Use moderate speed and ride only during daylight.
- OHVs are designed for one person only; never take a passenger.
- Take a required *Know*

Before You Go training course through Utah State Parks prior to operating an OHV. For more information visit www.stateparks.utah.gov.

- Obey the law. It is illegal for children under 8 years of age to operate an OHV on public land.

Snowmobiling

- Always wear a protective helmet designed and tested for snowmobile use.
- Refuse to ride with a driver who has been drinking alcohol.
- Stay on groomed and marked trails away from roads, waterways, railroads and pedestrians.
- Snowmobile only in areas free of wire or chain fences.
- Avoid riding over frozen water.
- Use headlights after dark.



Bicycles



- Always wear a bicycle helmet.
- Follow the rules of the road and obey all traffic laws. You should ride in the same direction as traffic and use hand signals.
- Be cautious around motor vehicles, especially near driveways and parking lots.
- Ride 2-3 feet away from parked vehicles (to avoid opening doors).
- If riding at night, have a red light, front head light and side reflectors.
- If riding in a group, ride single file. The front bicyclist should communicate upcoming hazards to any rear bicyclists and the rear bicyclist should always pay attention to the bicyclist just ahead.
- Walk the bike when nervous about traffic.
- Stop for pedestrians at crosswalks.

References

¹ Utah Department of Health, Violence & Injury Prevention Program, TBI database

² Brain Injury Association of America *Winter Safety for Children* brochure. <http://www.biau.org/>